DxMONITOR

Animal Health Report

A Quarterly Report of the National Animal Health Reporting System

Inside this Issue

Fall 1996

The DxMONITOR reports trends and geographic distributions of clinical disease diagnoses and animal health information collected from veterinary diagnostic laboratories, State veterinarians, and the USDA:APHIS.

The DxMONITOR Animal Health Report is distributed quarterly as part of the National Animal Health Reporting System (NAHRS). The NAHRS is a cooperative effort of the American Association of Veterinary Laboratory Diagnosticians (AAVLD), the United States Animal Health Association (USAHA), and the United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA:APHIS).

Caution should be taken when extrapolating information reported in the DxMONITOR due to the inherent biases of submitted specimens. Trends should be interpreted with care.

In this issue: The disease reporting period for new data was April 1 through June 30, 1996. Data have been reported by the National Veterinary Services Laboratories (NVSL), and the APHIS:Veterinary Services program staffs.

Send all correspondence and address changes to:

USDA:APHIS:VS
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LabNEWS

This section presents short descriptions of current investigations, outbreaks, news items, or events or articles of potential interest to diagnostic laboratories. The purpose is to provide a forum for timely exchanges of information about veterinary diagnostic laboratory and animal health activities. Submissions from nonparticipants are welcome.

Update on the National Animal Health Reporting System Pilot and the DxMONITOR Animal Health Report

Progress on the pilot of the National Animal Health Reporting System (NAHRS) was presented to a joint session of the AAVLD Animal Disease Reporting Committee (ADRC) and the USAHA Animal Disease Surveillance and Animal Health Information Systems Committee (ADSAHISC) at the 1996 annual meeting. Following a very productive discussion on the pilot, a resolution was developed by the USAHA committee regarding the next steps in the development of the NAHRS.

The resolution, which was passed, proposed that the president of USAHA create a working group with six commodity area subgroups (cattle, other ruminants, swine, equids, poultry, and aquaculture). Each subgroup will consist of representatives from USAHA, AAVLD, APHIS, industry, private practitioners, and others as requested. The subgroups are charged with deciding which diseases of international trade importance and/or interest to the industry should be reported to the NAHRS and development of the reporting criteria for the diseases. The working group will take the information from the six subgroups and combine it into a consistent, usable format. A final draft of the proposal for the new NAHRS is to be ready for presentation to the OIE in May of 1997.

State veterinarians will be responsible for collecting and validating all animal health information reported to the NAHRS from their State. The USAHA ADSAHISC recommended that the DxMONITOR Animal Health Report continue to present USDA:APHIS:VS program disease and bovine spongiform encephalopathy (BSE) information until the new disease reporting format is developed.

Contact: Dr. Marty Smith, NAHRS Coordinator, USDA:APHIS:VS, Centers for Epidemiology and Animal Health, Fort Collins, CO, (970) 490-8000).

Web Page Announcement

The USDA:APHIS:VS, Centers for Epidemiology and Animal Health (CEAH) have posted a Home page on the World Wide Web (http://www.aphis.usda.gov/vs/ceah)!

The DxMONITOR Animal Health Report is among the information files included under the Center for Animal Health Monitoring (CAHM). We hope the web page will help us reach new information users and make it easier for our existing customers to find needed information.

We would like your feedback. Please let us know what you think about the content, format, user-friendliness, or anything else of interest through DxMONITOR@aphis.usda.gov. If you would like to access the DxMONITOR through the web page in the future and be removed from our hard copy mailing list, please let us know through the e-mail address above.

Contact: Dr. Marty Smith, NAHRS Coordinator, USDA:APHIS:VS, Centers for Epidemiology and Animal Health, Fort Collins, CO, (970) 490-8000).

National Veterinary Services Laboratories' (NVSL) User Fees

In order to support their commitment to the poultry industry, the NVSL is no longer charging for *Salmonella* serotyping and avian influenza reagents, as of October 13, 1996. The policy on these services will be the same as prior to July 1996. To save resources, the NVSL encourages limiting the submission of *Salmonella* isolates to less than five isolates from each premise and would appreciate serogrouping of isolates prior to submission.

Contact: Dr. Jim Pearson, Director, USDA:APHIS:VS, National Veterinary Services Laboratories, Ames, IA, (515) 239-8266.

National Veterinary Services Laboratories' (NVSL) Quarterly *Salmonella* Report

This article is excerpted from the National Veterinary Services Laboratories' (NVSL) Quarterly *Salmonella* Report. This quarterly report summarizes *Salmonella* serotype distribution and frequency data accumulated by the NVSL during the period April 1 through June 30, 1996.

The most common serotype results are included for *Salmonella* cultures from livestock species submitted to the NVSL for identification.

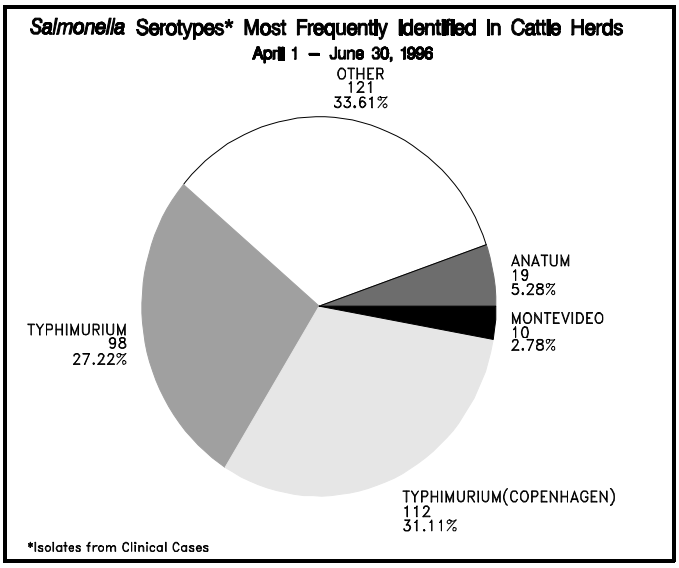


Figure 1

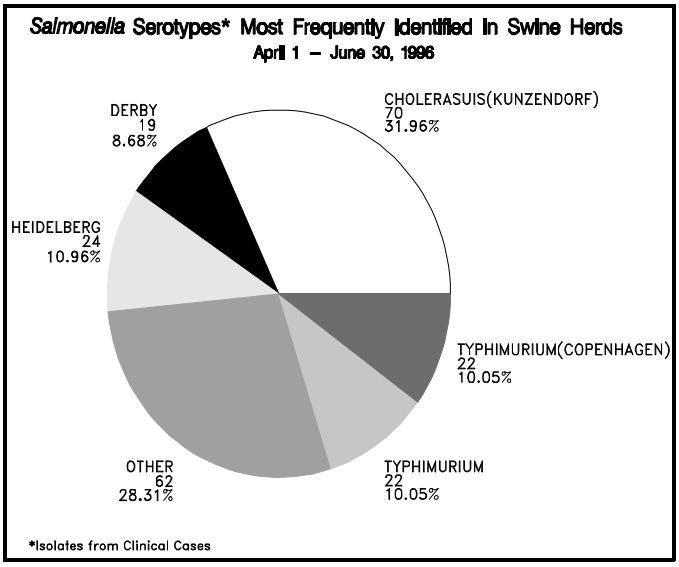


Figure 2

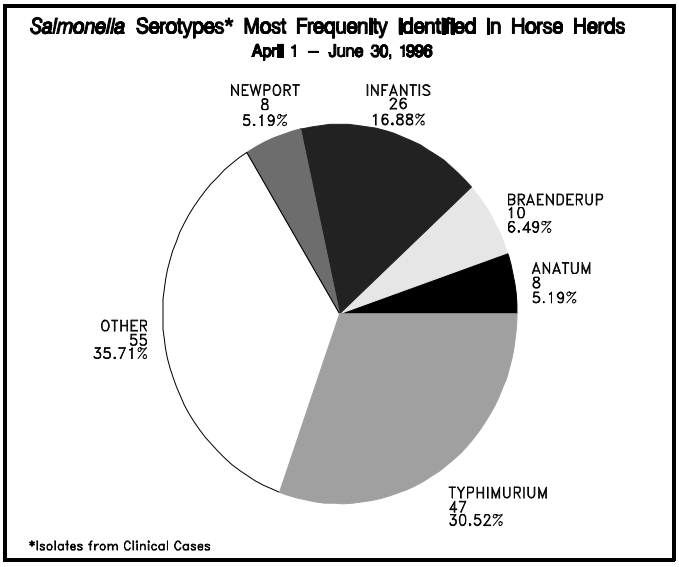


Figure 3

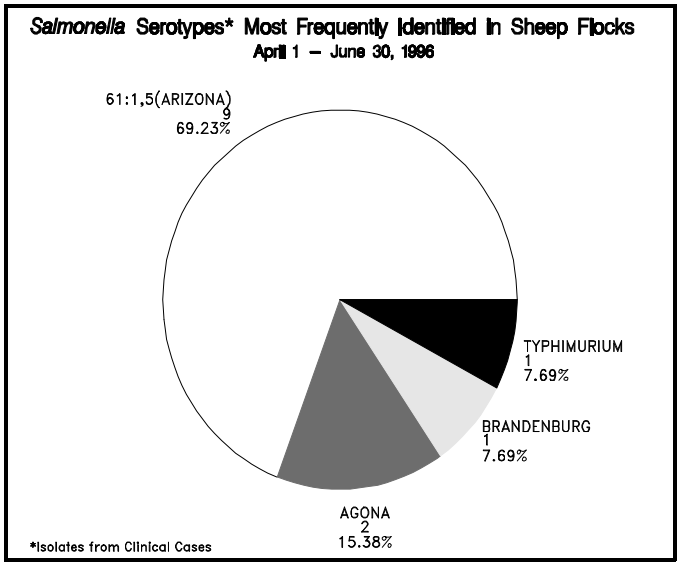


Figure 4

Figures 1 through 6 show the most commonly identified *Salmonella* serotypes of clinical isolates in cattle, swine, and horse herds, and sheep, chicken, and turkey flocks. Clinical isolates are those submitted from animals with primary or secondary *Salmonella* infections.

Salmonella serotypes included in the "other" category from swine, horses, and sheep were all unspecified. "Other" serotypes from cattle included seven cerro and 114 unspecified. "Other" serotypes from chickens included one each for enteritidis, infantis, worthington, montevideo, and ohio, and four unspecified. "Other" serotypes from turkeys included one each for brandenburg, typhimurium (copenhagen), reading, ohio, javiana, and anatum, two infantis, three kentucky, three 18:z4,z32 (Arizona), four typhimurium, and six unspecified.

Contact: Ms. Kathy Ferris, Bacterial Identification Section, USDA:APHIS:VS, National Veterinary Services Laboratories, Ames, IA, (515) 239-8565.

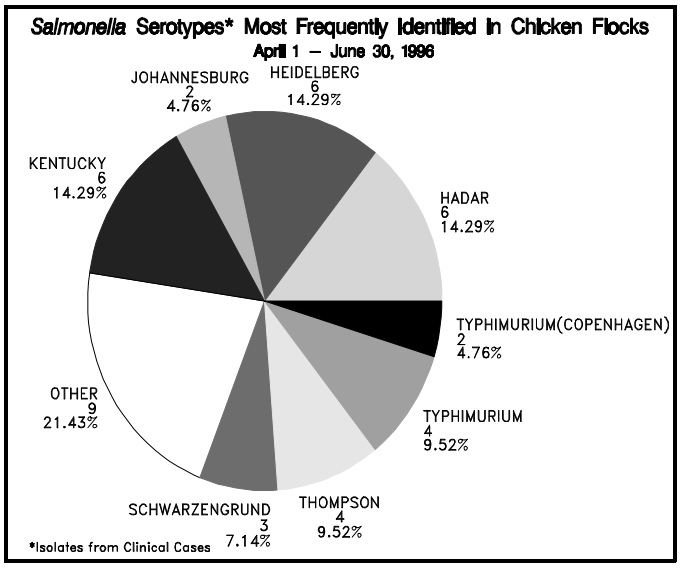


Figure 5

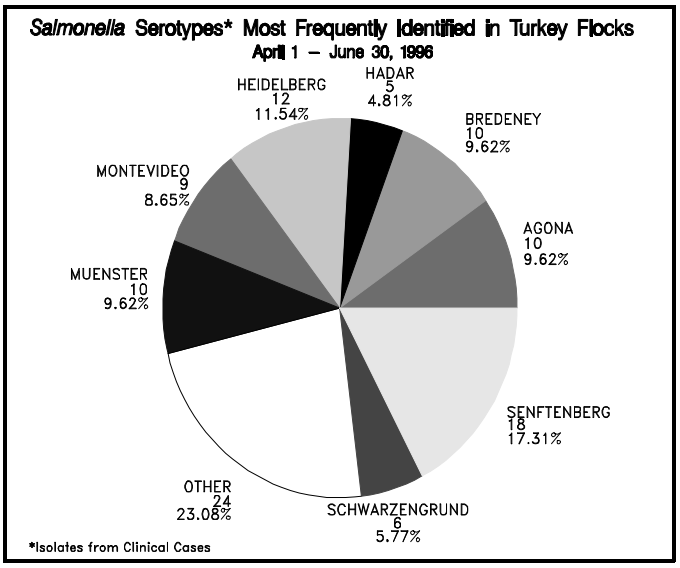


Figure 6

International Bovine Spongiform Encephalopathy Update

The Bovine Spongiform Encephalopathy (BSE) update for Great Britain and other BSE affected countries is presented in the LabNEWS. The update for the United States surveillance is on page 9 in the Patterns of Selected Clinical Cattle Diseases section.

United Kingdom Update:

Source: Dr. J. Wilesmith, Great Britain

Great Britain reported 2,368 newly confirmed cases of bovine spongiform encephalopathy (BSE) with 187 more herds affected between May 31 and August 30, 1996 (Table 1). The epidemic curve (Figure 7) indicates a slight increase in newly confirmed cases between May 31 and August 30 over the number newly confirmed between March 1 and May 31, 1996. It is too early to determine if this indicates a reverse in the decline of the epidemic.

Bovine Spongiform Encephalopathy
Descriptive Epidemiology Statistics
for Great Britain*
As of August 30, 1996

Total number of confirmed cases:	162,908
Total number of affected herds:	33,642
Proportion of dairy herds affected:	59.7%
Proportion of beef suckler herds affected	15.5%

* England, Scotland, Wales

Data provided by Great Britain.

Table 1

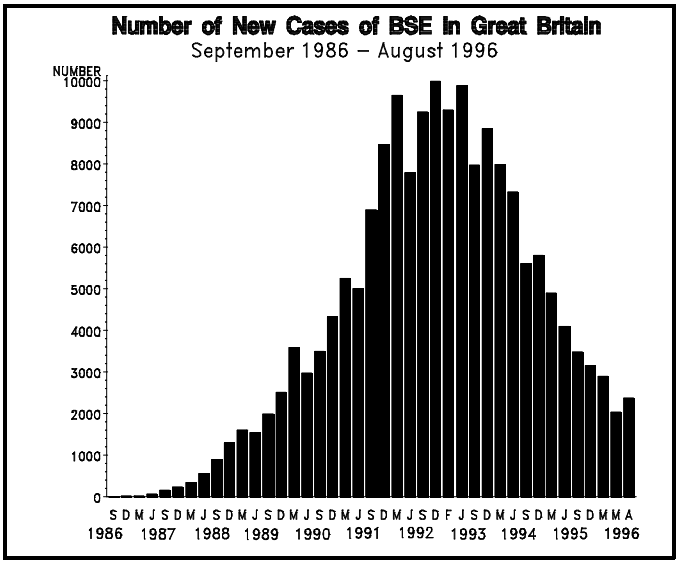


Figure 7

Other BSE Affected Countries:

Sources: Dr. T. Chillaud, Office International des Epizooties
Dr. G. O. Denny, Northern Ireland

The epidemic curve for Northern Ireland shows that the epidemic is apparently declining after peaking in 1993 (Figure 8).

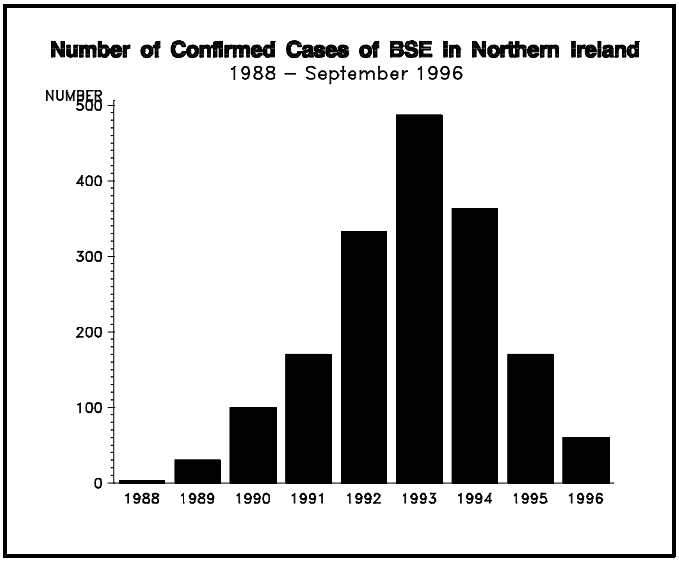


Figure 8

Northern Ireland reported eight additional cases of BSE in native cattle between June 4 and September 9, 1996. The Republic of Ireland reported 16 additional cases in native cattle between May 1 and August 29, 1996. Switzerland reported five additional cases in native cattle between May 17 and August 23, 1996. Portugal reported eight additional cases in native cattle between May 27 and August 29, 1996. France reported two additional cases in native cattle between May 31 and July 10, 1996. (Table 2). No additional reports of BSE cases imported from the United Kingdom or other countries with endemic BSE were recorded since the last reporting period.

BSE Cases[1] Worldwide Other Than Great Britain as of September 5, 1996

Country[2]	1987 +before	1988	1989	1990	1991	1992	1993	1994	1995	1996	Total
Guernsey	4	34	52	83	75	92	115	71	44	13	583
Northern Ireland	0	3	30	100	170	333	487	363	170	60[3]	1716
Jersey	0	1	4	8	14	23	37	22	10	1	120
Isle of Man	0	6	6	22	67	109	110	55	33	2	410
Republic of Ireland	0	0	15	14	17	18	16	19	16	26[3]	141
Switzerland	0	0	0	2	8	15	29	64	68	35[3]	221
Portugal	0	0	0	1[4]	1[4]	1[4]	3[4]	12	14	14[3]	46
France	0	0	0	0	5	0	1	4	3	9[3]	22

Countries with imported cases only:

Germany: 4 cases (02/92, 02/94, 04/94, 05/94)
Canada: 1 case (11/93)
Denmark: 1 case (07/92)
Falkland Islands: 1 case (1989)
Italy: 2 cases (10/94)
Oman: 2 cases (1989)

1. Cases in native cattle and cattle imported from the U.K. or another country with endemic BSE.
2. In order of first reported case/diagnosis.
3. Data for Switzerland as of August 23, 1996; data for Portugal as of August 29, 1996; data for Northern Ireland as of September 9, 1996; data for the Republic of Ireland as of August 29, 1996; data for France as of July 10, 1996.
4. Imported cases.

Data provided by Office International des Epizooties and Northern Ireland.

Table 2

I. Patterns of Selected Animal Distributions

Section I contains information on the distribution of selected animals in the United States. The distribution may reflect the commercial food animal production or the location of individual animals. The purpose of reporting these patterns is to provide data on the location and density of the different animal species included in the National Animal Health Reporting System.

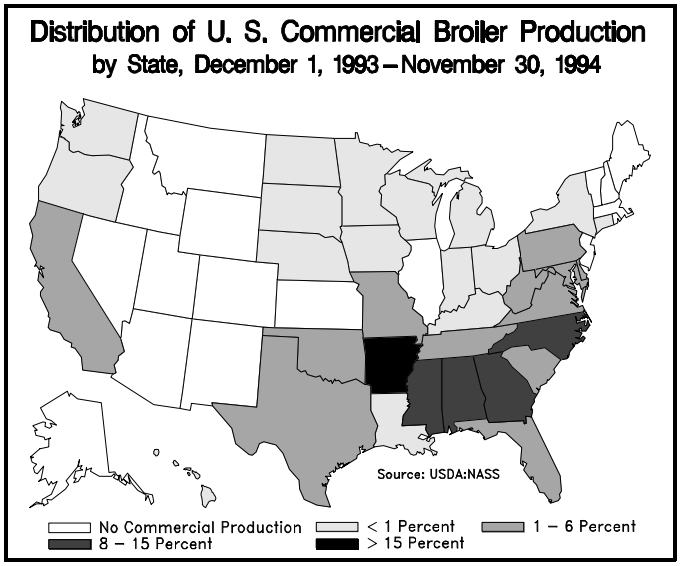


Figure 9

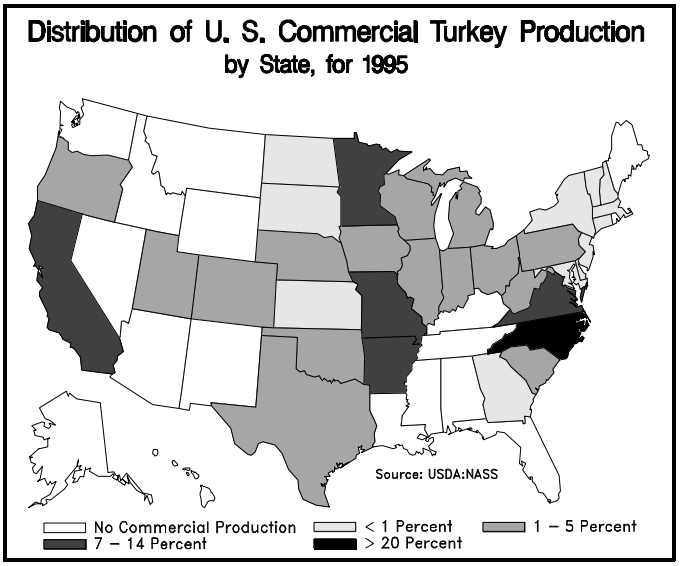


Figure 10

Figures 9 through 16 show the distribution of commercial food animal production in the U.S. by State for broilers, turkeys, cattle, catfish, trout, Angora goats, swine, and sheep based on USDA:National Agricultural Statistics Services (NASS) survey data. Figure 17 shows the distribution of horses and ponies on farm in the U.S. by State based on U.S. Census Bureau data. Commercial broiler production distribution (Figure 9) is the percentage of 7,017,540,000 birds, from December 1, 1993 - November 30, 1994. Commercial turkey production distribution (Figure 10) is the percentage of 292,625,000 birds in 1995. The distribution of cattle (beef and dairy, Figure 11) is the percentage of 103,819,200 head, from January 1, 1995-1996. Commercial catfish production distribution (Figure 12) is the percentage of 184,096,000 food size fish processed from July 1, 1994 - 1995. Commercial trout production distribution (Figure 13) is the percentage of 60,017,000 fish processed between September 1, 1994 - August 31, 1995.

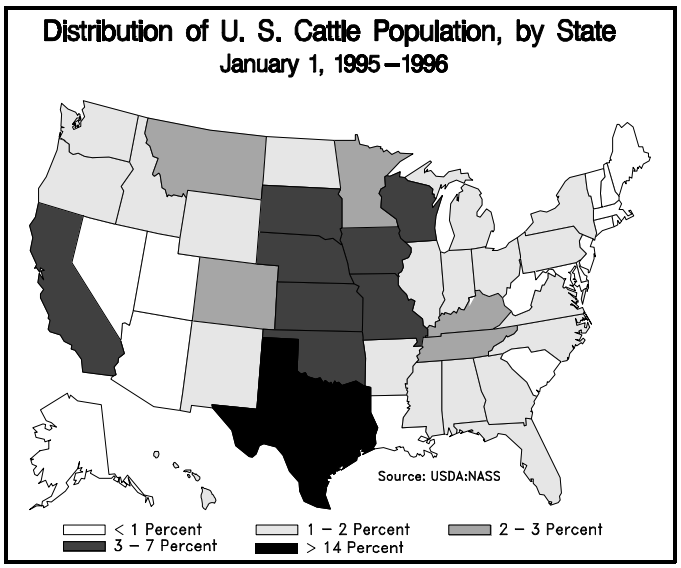


Figure 11

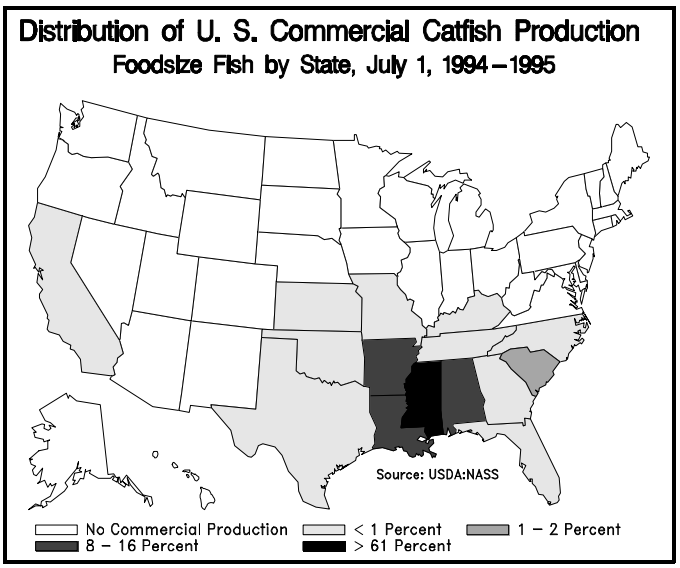


Figure 12

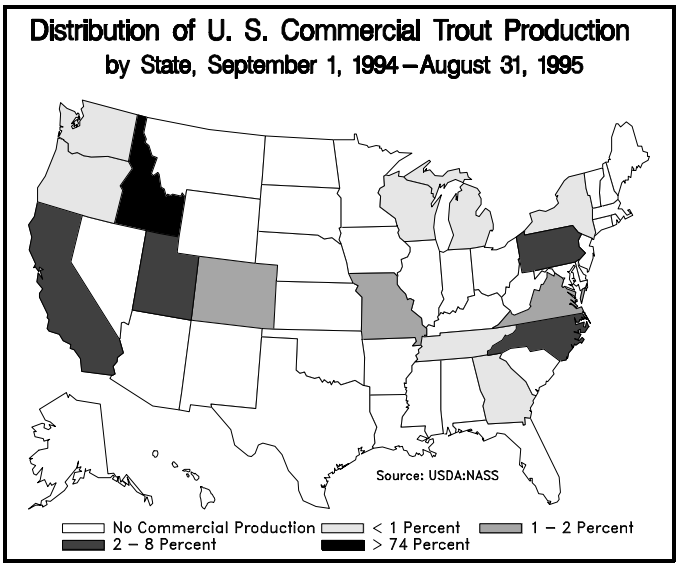


Figure 13

The distribution of Angora goats (Figure 14) is the percentage of 1,434,000 head, as of January 1, 1996. The distribution of swine (Figure 15) is the percentage of 60,190,000 head, from December 1, 1994-1995. The distribution of sheep (Figure 16) is the percentage of 8,457,100 head, from January 1, 1995 - 1996. The distribution of horses and ponies (Figure 17) is the percentage of 2,049,522 head on farm, as of 1992. This total does not include all equids in the U.S.

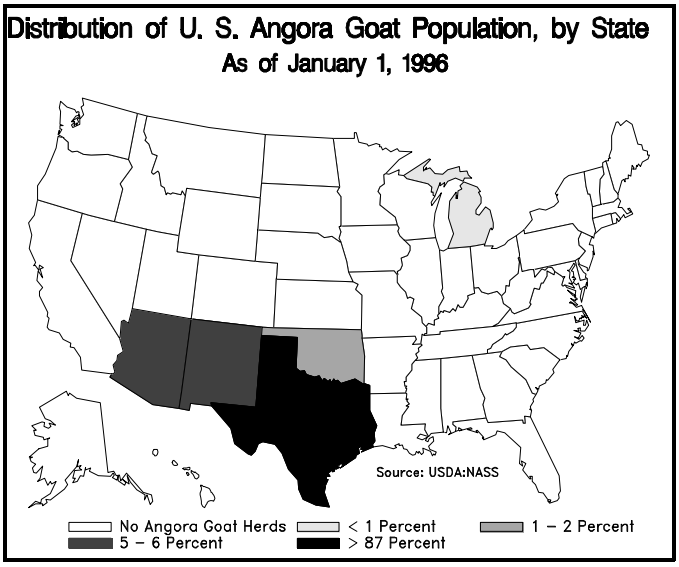


Figure 14

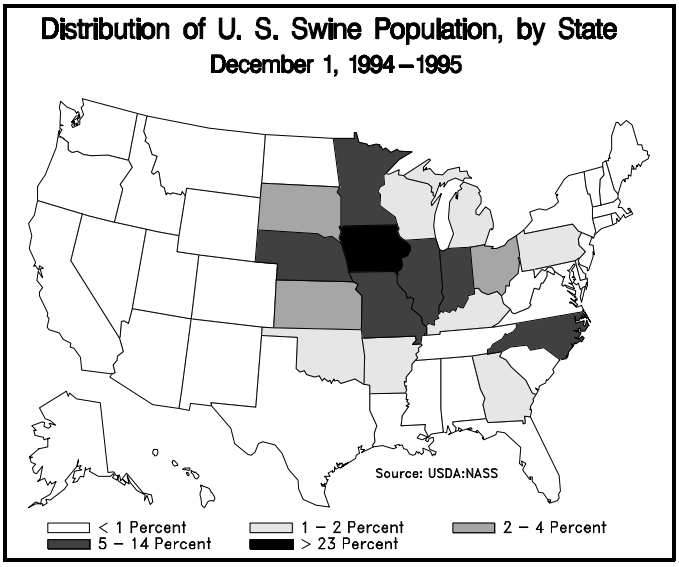


Figure 15

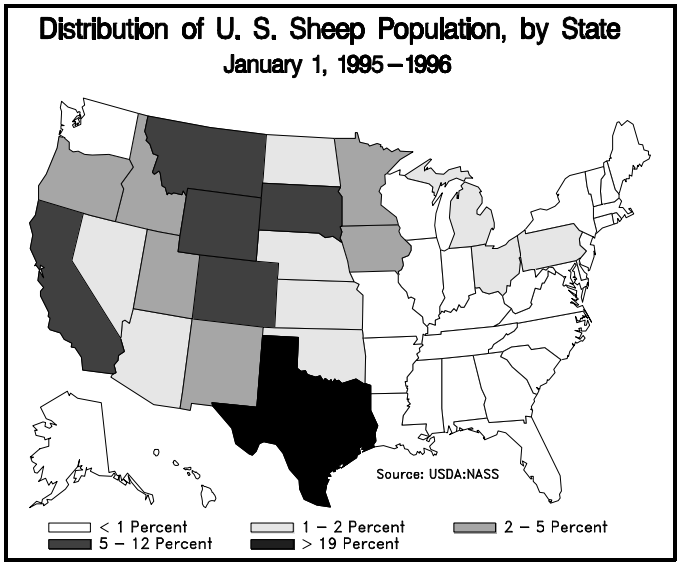


Figure 16

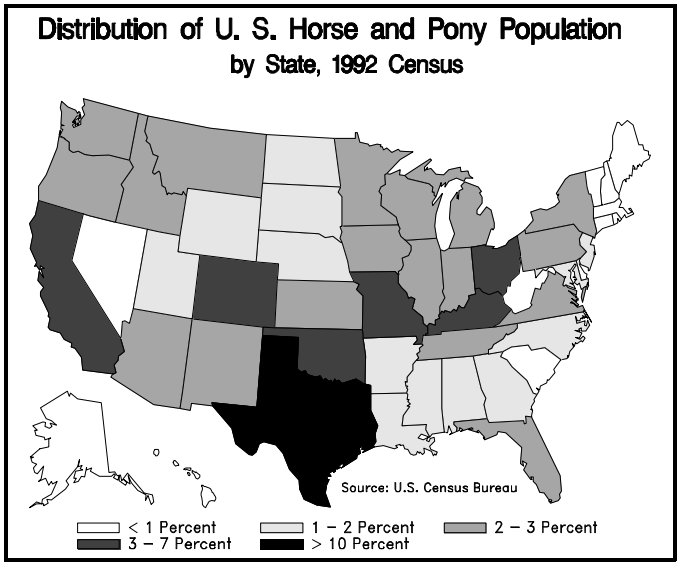


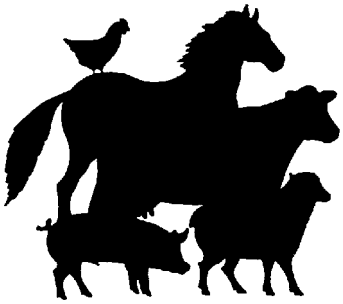
Figure 17

II. Patterns of Selected Clinical Cattle Diseases

Section II contains information on selected cattle diseases of interest as designated by the Office International des Epizooties (OIE) and other sources. The purpose of reporting these data is to monitor clinical cases of specific diseases on a State-by-State or regional basis so that national distributions may be mapped and evaluated.

Key to Figures in this Section:

- **Data on regulatory diseases are presented by State classification for that disease, where applicable, and maps and graphs of herd information.**



☐ Bovine Brucellosis

Source: Dr. Mike Gilsdorf
USDA:APHIS:VS
National Animal Health Programs
(301) 734-8711

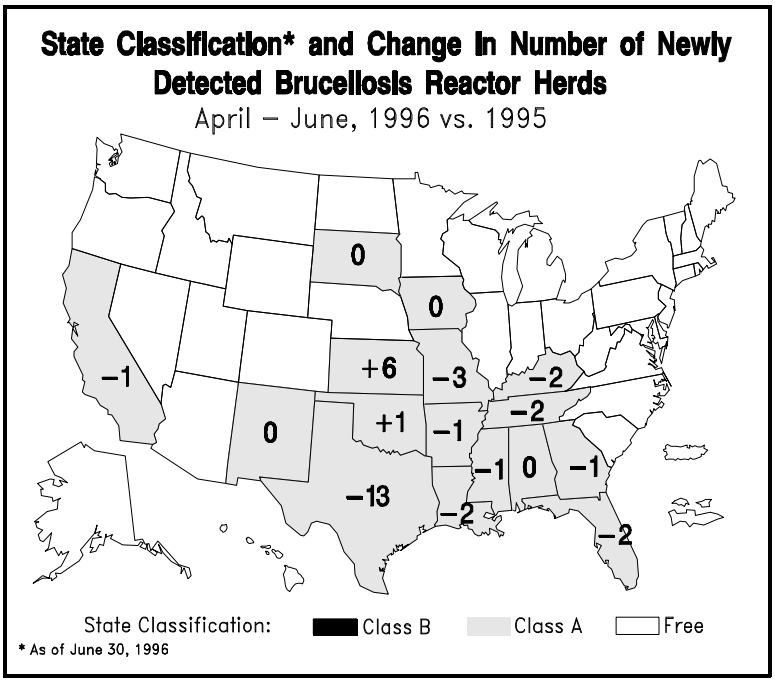


Figure 18

Reactor herd = Herd with at least one case of brucellosis confirmed by serology or culture.

Definition of State Classifications:

Class B: More than 0.25 percent, but less than 1.5 percent of all herds infected.

Class A: No more than 0.25 percent of all herds infected.

Free: No infected herds under quarantine during the past 12 months.

All States held Class A or Free status in the bovine brucellosis program at the time this report was released. Thirty-four States plus Puerto Rico and the U.S. Virgin Islands were classified as free of bovine brucellosis. Arkansas, California, Florida, Georgia, Iowa, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, and Texas had decreased numbers of newly detected bovine brucellosis herds between April 1 and June 30, 1996, compared to the same period in 1995. Only Kansas and Oklahoma had increased numbers (Figure 18).

For the entire U.S., there were 37 newly detected bovine brucellosis reactor herds from April through June 1996 (Figure 19), nine more herds than were newly identified from January through March 1996.

The 37 brucellosis reactor herds detected in the second quarter of 1996 were 21 fewer than were detected during the same quarter of 1995 (Figure 20). Ten herds were depopulated during June 1996, one in Iowa, five in Kansas, one in Oklahoma, and three in Texas.

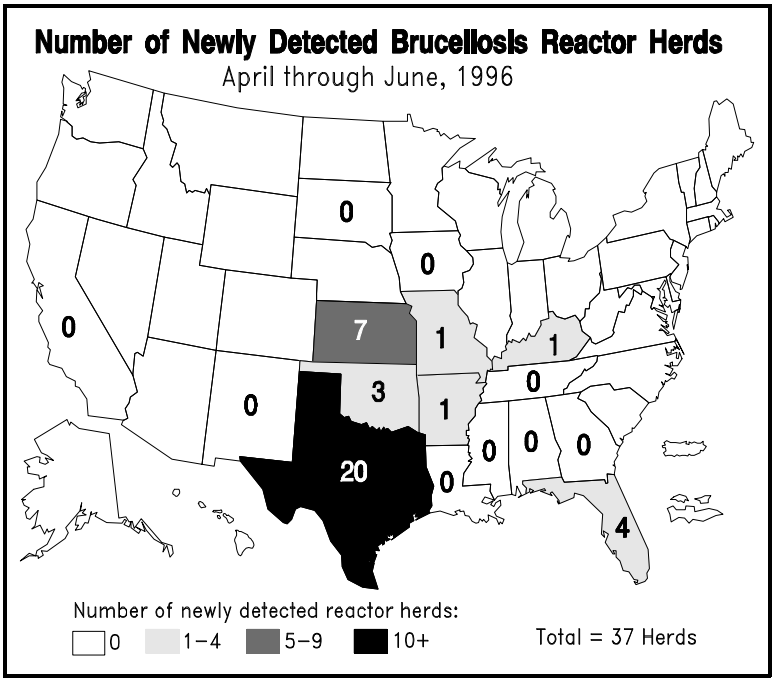


Figure 19

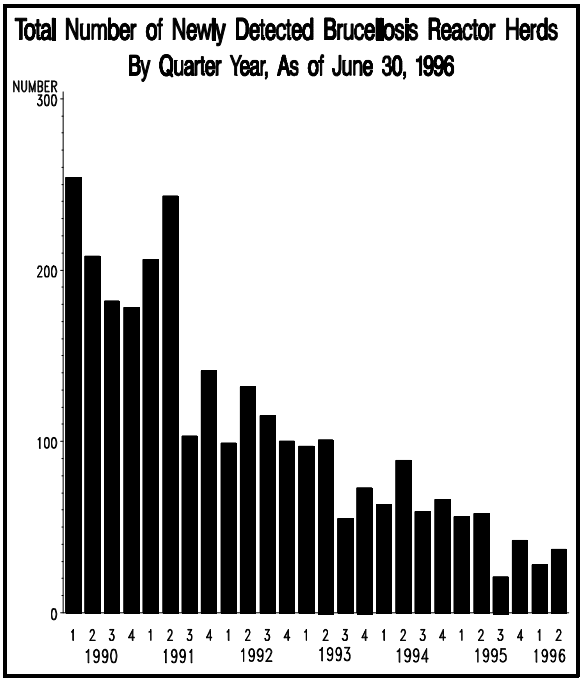


Figure 20

☐ Bovine Spongiform Encephalopathy (BSE)

United States Surveillance:

Source: Dr. Art Davis
USDA:APHIS:VS
National Veterinary Services Laboratories
Diagnostic Pathobiology Laboratory
(515) 239-8521

Surveillance for bovine spongiform encephalopathy (BSE) in the United States continues. The National Veterinary Services Laboratories (NVSL) reported on an additional 1,646 brains from August 1 through September 30, 1996 (Figure 21). These 1,646 brains were either examined by NVSL or examination results reported to NVSL by veterinary diagnostic laboratories. The criteria for veterinary diagnostic laboratory reporting to NVSL are bovine animals at least two years of age with central nervous disease signs. This brings the total number of examined brains reported by NVSL to 5,071, as of September 30, 1996. This number includes only those brains examined by or reported to NVSL, other brains in the U.S. may have been examined for evidence of BSE without being reported to NVSL.

No evidence of BSE has been found in any U.S. cattle.

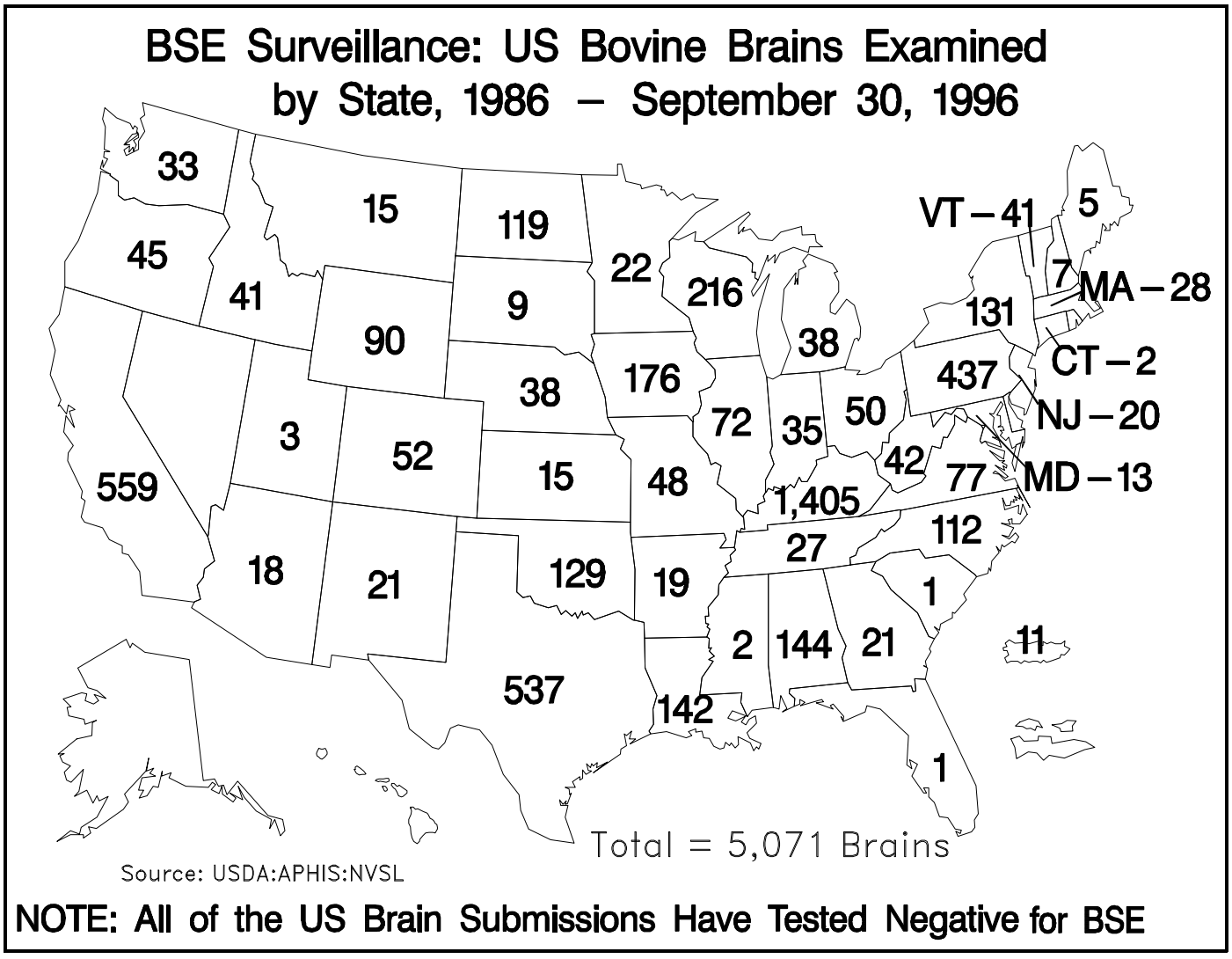


Figure 21

☐ Bovine Tuberculosis

Source: Dr. J.S. VanTiem
USDA:APHIS:VS
National Animal Health Programs
(301) 734-8711

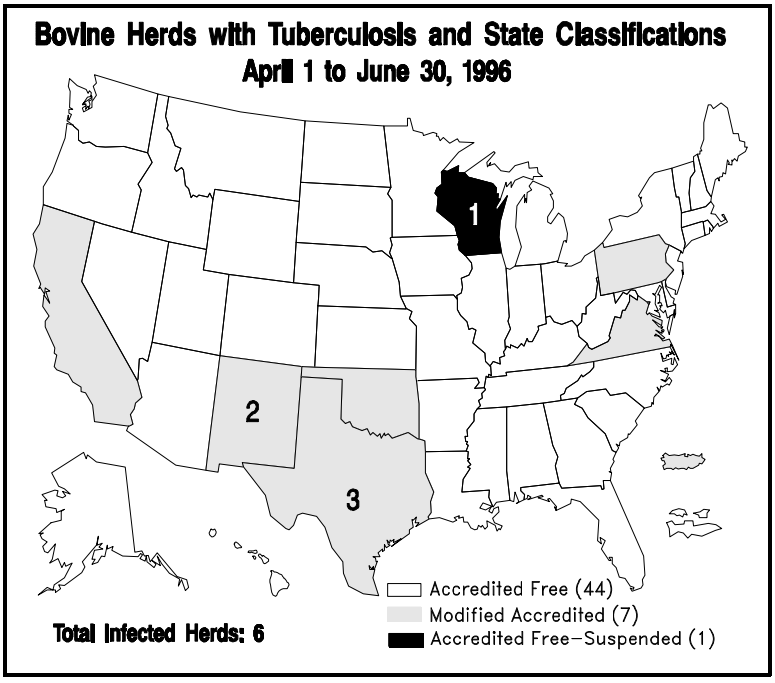


Figure 22

Infected = Laboratory confirmed existence of *Mycobacterium bovis*.

State Classifications:
Modified Accredited: Testing and Slaughter Surveillance Programs in effect.
Accredited Free: Testing and Slaughter Surveillance Programs have identified no infected bovines for 5 or more years.

Six cattle or bison herds were known to be infected with bovine tuberculosis during the second quarter of 1996 (April - June, 1996, Figure 22).

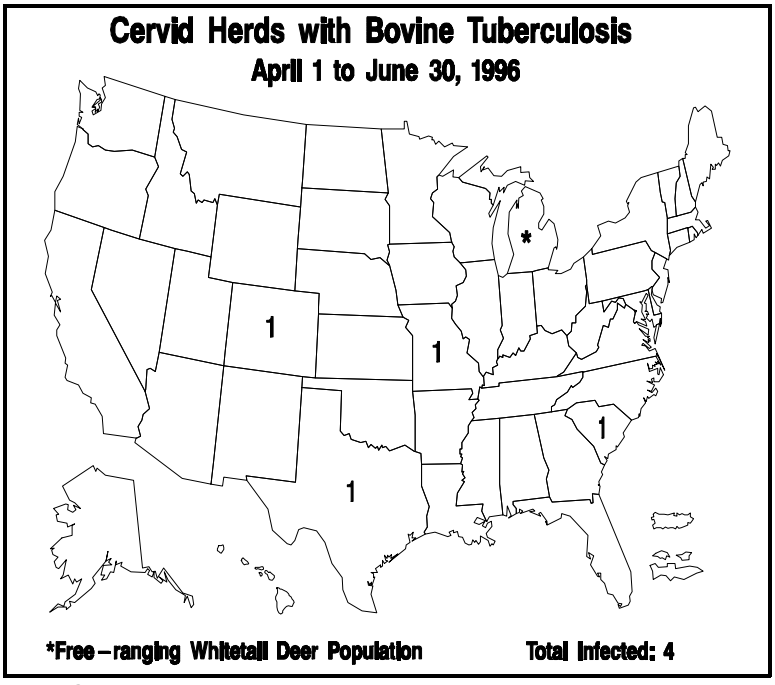


Figure 23

Four cervidae herds were known to be infected with bovine tuberculosis during the second quarter of 1996 (Figure 23). Free-ranging whitetail deer in Michigan have been identified as positive for bovine tuberculosis.

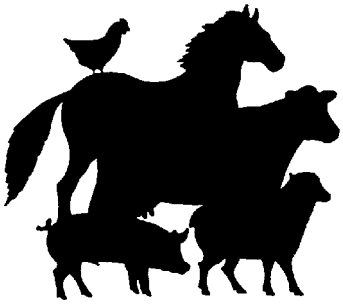
NOTE: The Summer 1996 DxMONITOR mistakenly indicated a tuberculosis infected cervid herd in North Carolina. The herd is in South Carolina. We regret any problems this may have caused.

III. Patterns of Selected Clinical Horse Diseases

Section III contains information on selected horse diseases of interest as designated by the Office International des Epizooties (OIE) and other sources. The purpose of reporting these data is to monitor confirmed cases of specific diseases on a State-by-State or regional basis so that national distributions may be mapped and evaluated.

Key to Figures in this Section:

- **Data on regulatory diseases are presented by State classification for that disease, where applicable, and maps and graphs of herd information.**



☐ Equine Infectious Anemia (EIA)

Source: Dr. Tim Cordes
USDA:APHIS:VS
National Animal Health Programs
(301)734-6974

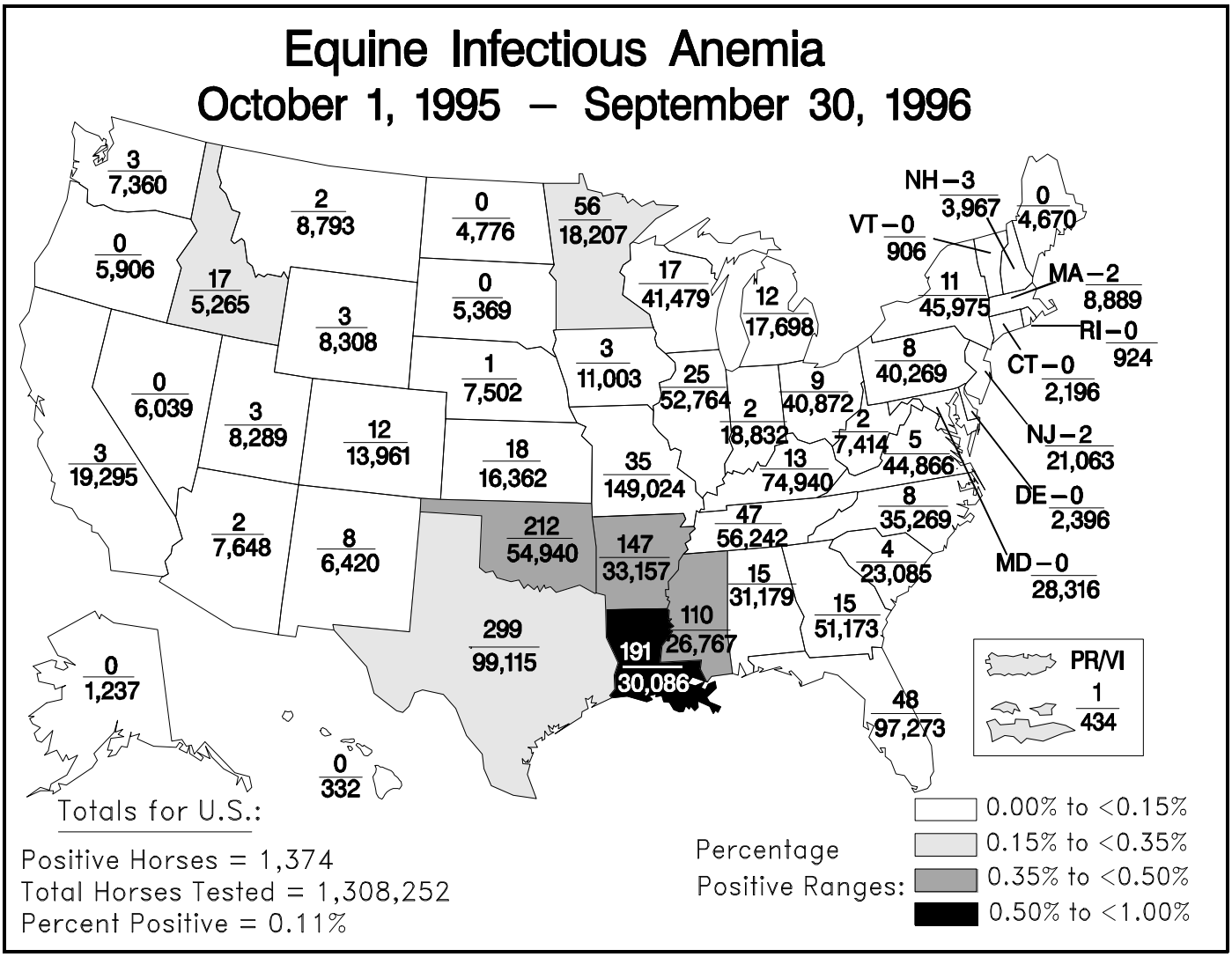


Figure 24

Figure 24 shows the results of equine infectious anemia (EIA) testing from October 1, 1995, through September 30, 1996. Compared to the annual results for the same time period in 1994-1995, the number of total horses tested was higher (1,308,252 tested this year versus 1,116,396 tested last year). The overall percent of positive horses was lower this year than last (0.11 percent for this year versus 0.16 percent for last year). The greatest concentration of positive horses is in the south central United States (Arkansas, Louisiana, Mississippi, Oklahoma, and Texas).

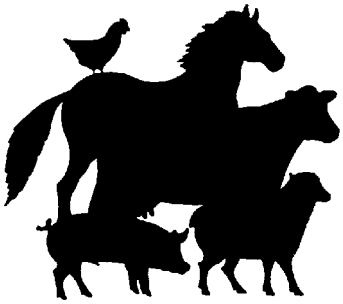
Caution should be used in interpreting the EIA results. Testing for EIA is performed primarily to comply with regulations on movements of horses. These regulations may vary from one State to another and what is reported here does not necessarily reflect the status of horses that have not moved.

IV. Patterns of Selected Clinical Pig Diseases

Section IV contains information on selected pig diseases of interest as designated by the Office International des Epizooties (OIE) and other sources. The purpose of reporting these data is to monitor confirmed cases of specific diseases on a State-by-State or regional basis so that national distributions may be mapped and evaluated.

Key to Figures in this Section:

- **Data on regulatory diseases are presented by State classification for that disease, where applicable, and maps and graphs of herd information.**



☐ Pseudorabies Virus (PRV)

Source: Dr. Arnold Taft
USDA:APHIS:VS
National Animal Health Programs
(301) 734-8711

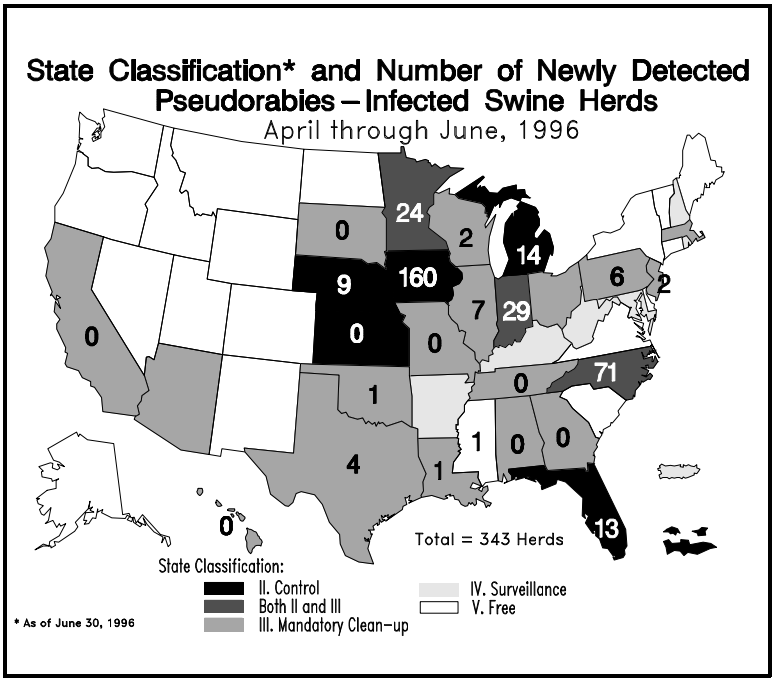


Figure 25

A total of 343 swine herds were newly identified as infected with pseudorabies virus (PRV) during the second quarter of 1996 (Figure 25). The number of newly identified herds in Iowa was 160 for the second quarter of 1996. Illinois, Pennsylvania (Class III); Arkansas, Kentucky (Class IV); and Colorado (Class V) all advanced in State classification between April and June 1996. There were no Class I States at the time of release of this report.

Iowa had 56.9 percent (1,844 out of 3,238) of all known PRV infected swine herds in the U.S. in the second quarter of 1996. The total number of known infected herds in the U.S. continues to decline (Figure 26). The herd prevalence of PRV was 1.8 percent for the second quarter of 1996. During the same time period, 94.9 percent of all known infected herds were involved in clean-up programs.

Figure 27 shows the number of swine herds newly identified with PRV infection by quarter from January 1991 through June 1996.

NOTE: Mississippi dropped from Free to Class III on July 22, 1996. The one newly infected herd was depopulated. Puerto Rico advanced to Class V on September 1, 1996, and the Virgin Islands advanced to Class IV on October 1, 1996.
EDITOR'S NOTE: Arizona is shown on the map as Class III, but advanced to Class IV on April 1, 1996.

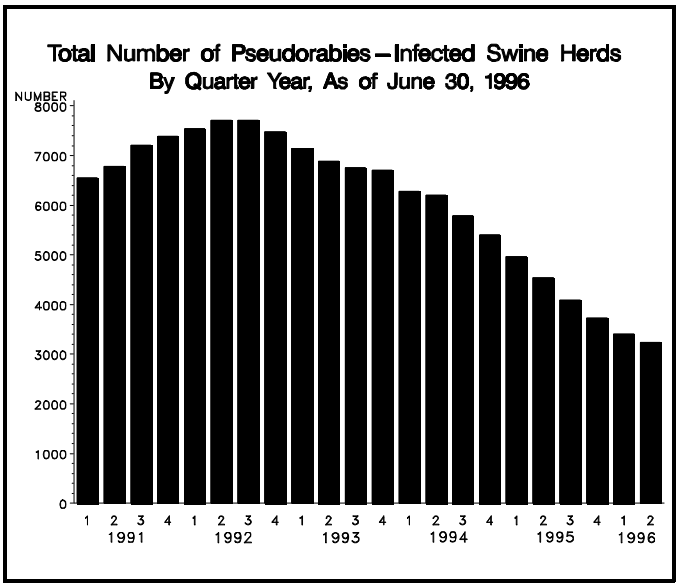


Figure 26

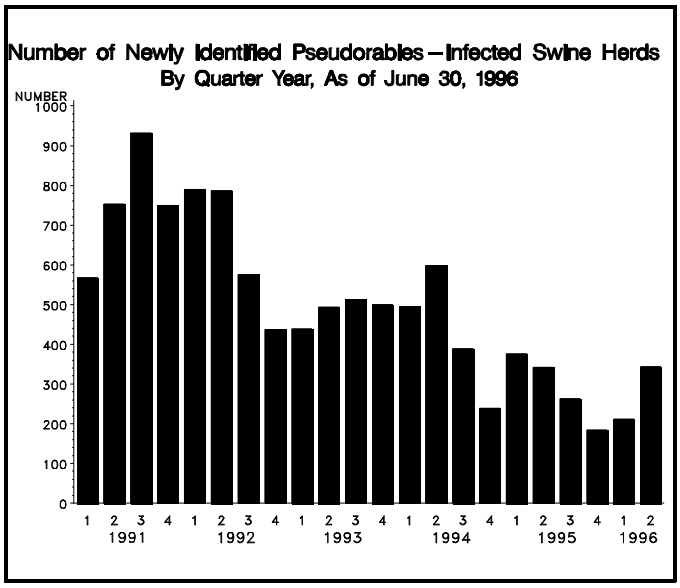


Figure 27

☐ Swine Brucellosis

Source: Dr. Granville Frye
USDA:APHIS:VS
National Animal Health Programs
(301) 734-8711

State Classifications:

Stage 1: Organization. Surveillance and traceback begun.

Stage 2: At least 10 percent surveillance per year. At least 80 percent of tracebacks successful.

Stage 3: Validated Free. At least five percent surveillance per year. At least 80 percent of tracebacks successful.

There were no Stage 1 States for swine brucellosis at the time of release of this report. The total number of newly detected herds was 13 in the second quarter of 1996 (Figure 28).

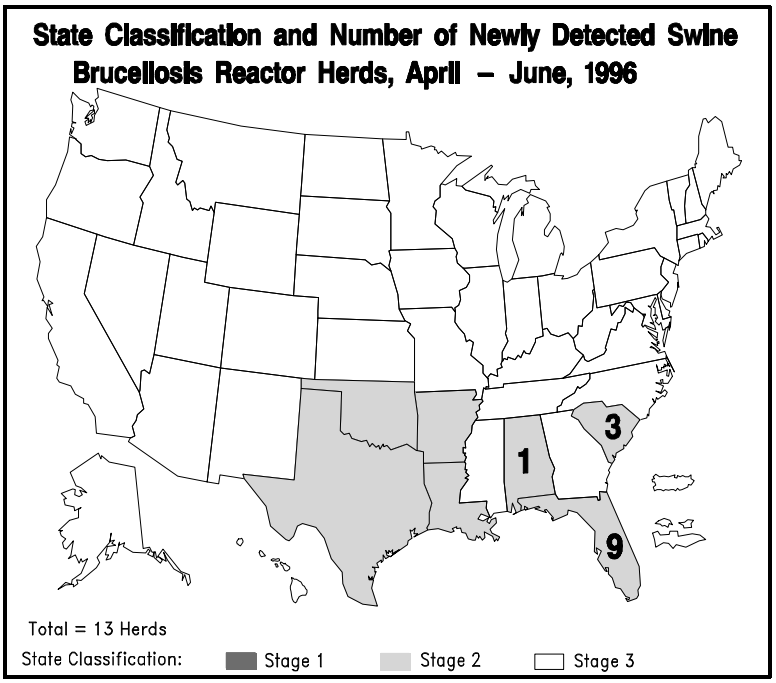


Figure 28

There were seven swine herds, all in Florida, under quarantine for brucellosis at the end of the second quarter of 1996 (Figure 29).

Eighteen herds were depopulated during the second quarter of 1996, one each in Alabama and Wyoming, three in Florida, four in South Carolina, and nine in New Jersey.

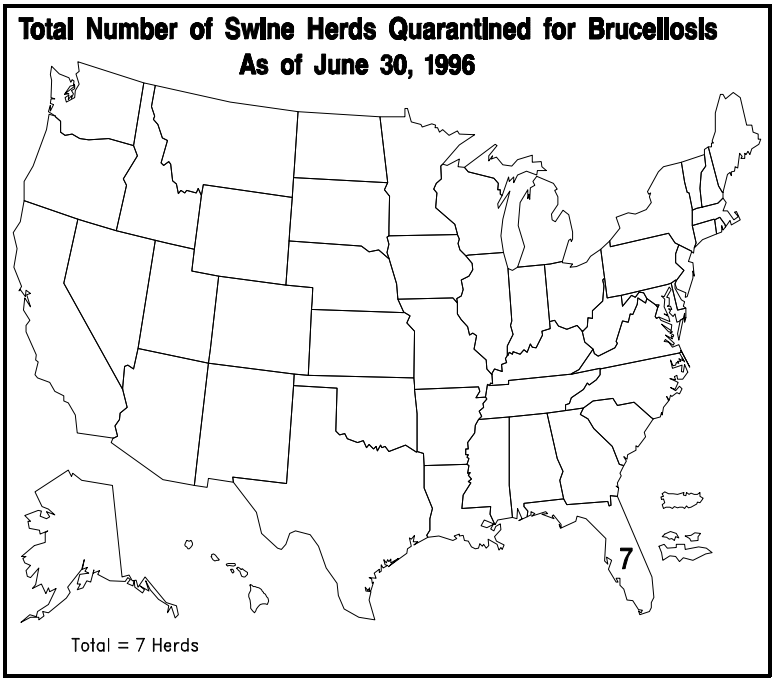


Figure 29

Free Data Submission Form Available

The DxMONITOR Data Submission Form is available free of charge to any laboratory or State Veterinarian's office interested in participating in the National Animal Health Reporting System (NAHRS).

To use the form, data must first be captured in whatever manner works best for that particular participant. The data are then entered onto the form which is provided. Please contact the address on the inside front cover of this issue for more information about the data submission form.

LabNEWS Article Submissions are Encouraged

Readers of the DxMONITOR Animal Health Report are encouraged to submit items suitable for the "LabNEWS." All articles should be typed double spaced. Photos/artwork should be camera ready copy. If possible, please provide your article on diskette and indicate what type of software was used to create/store the file (i.e., WordPerfect, Word Star). Send submissions to the address on the inside front cover of this report.

Materials available from the NAHRS are listed below. Send this clip-out order form to:

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USDA:APHIS:VS
Centers for Epidemiology
and Animal Health
555 South Howes, Suite 200
Fort Collins, CO 80521-2586

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Quantity

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